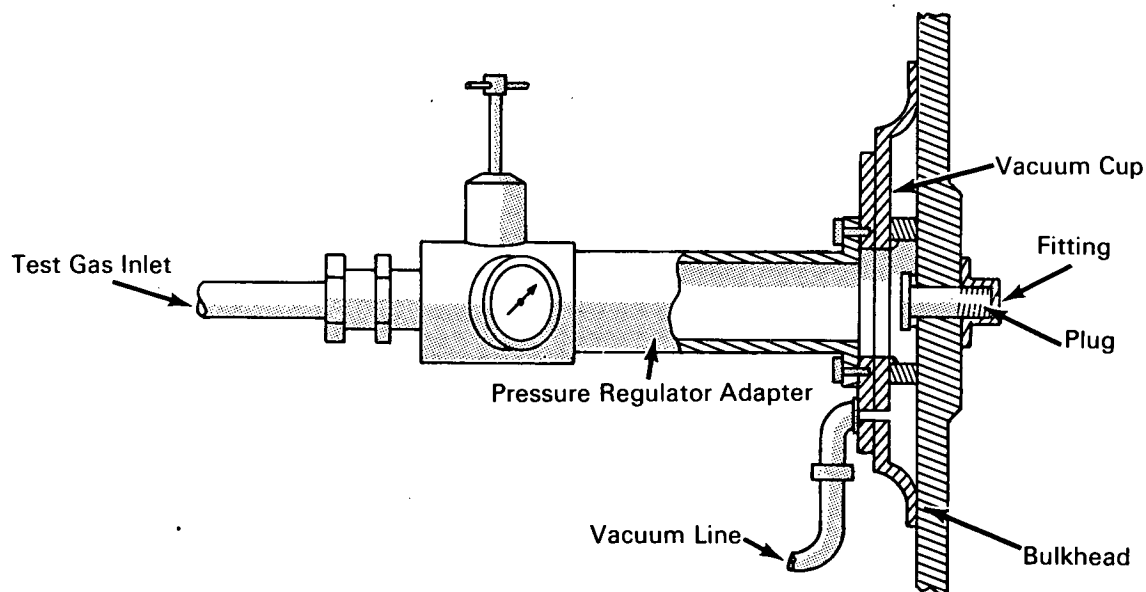


## NASA TECH BRIEF



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### Portable Fixture Facilitates Pressure Testing of Instrumentation Fittings

**The problem:**

To devise a portable fixture that will facilitate pressure testing to detect possible leaks in instrumentation fittings mounted in the bulkhead of a large tank.

**The solution:**

A fixture incorporating a vacuum cup which seals a pressure regulator adapter around one side of the fitting to be pressure tested.

**How it's done:**

The vacuum cup of the fixture is held against the tank bulkhead at the position of the plugged fitting, and a vacuum is drawn. Test gas is slowly introduced through the pressure regulator adapter until the pressure reaches 15 psig. Leakage is detected with a gas sniffer at the opposite side of the bulkhead or by the bubbling of a leak-check fluid previously applied at the junction of the fitting with that side of the bulkhead.

**Notes:**

1. Use of this device eliminates the need to have a completely closed vessel to test for leaks.
2. This device would have application wherever the possibility of leaks in a flat surface is present.
3. Inquiries concerning this innovation may be directed to:

Technology Utilization Officer  
Marshall Space Flight Center  
Huntsville, Alabama 35812  
Reference: B67-10121

**Patent status:**

No patent action is contemplated by NASA.

Source: George A. Olson  
of The Boeing Company  
under contract to  
Marshall Space Flight Center  
(M-FS-2032)  
Category 03

